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EXAMINER	
MATTIS, JASON E	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,572	FOSTER ET AL.	
	Examiner	Art Unit	
	Jason E Mattis	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,23-32 and 34-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20, 23-32, and 34-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to Applicants' Amendment filed on 10/04/04. Claims 1-20, 23-32, and 34-41 are currently pending in the application. Due to the amendment, the previous rejections under 35 USC § 112 have been withdrawn.

Claim Objections

2. Claim 20 is objected to because of the following informalities:

Lines 3-4 of claim 20 state, "the communication indicating that the port is to be part of a new connection ...". Since this is the first mention of a port, it is recommended that "the port" be changed to "a port of the routing device".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-4, 9, and 11-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Olnowich et al. (U.S. Pat. 5680402).

With respect to claim 1, Olnowich et al. discloses a method in a switch for avoiding a deadlock while a connection is being established through the switch **(See the abstract and column 17 lines 28-34 of Olnowich et al. for reference to circuitry detecting and correction different types of deadlock conditions automatically in a dual priority switching apparatus)**. Olnowich et al. also discloses receiving data at a port, the data indicating that the port is to be part of a conflicting connection established through the switch **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred sending a correction signal, which indicates that a port of a switch is part of a conflicting connection)**. Olnowich et al. further discloses when the port is already part of a current connection that is being established, allowing a priority determination to be made, and when the current connection has a higher priority than the conflicting connection, keeping the current connection **(See column 21 lines 53-56 and column 20 lines 10-12 of Olnowich et al. for reference to the deadlock correction occurring without terminating or changing any other connections and at the same time holding the current connection at the switch, while the priority is determined, so that when the current connection has a higher priority, this current connection is kept)**. Olnowich et al. also discloses that when the current connection does not have a higher priority than the conflicting connection, establishing part of the conflicting connection through the port **(See column 21 lines 21-39 and column 23 lines 56-67 of Olnowich et al. for reference to an example of a deadlock situation occurring and for reference to the deadlock being resolved by making priority consistent across all**

the deadlocked ports of the deadlocked switches, meaning that the higher priority connection is connected through the port and if the conflicting connection has higher priority, it is the connection established). Olnowich et al. further discloses using a unique identifier as a tiebreaker to determine which connection has a higher priority when the current connection has the same priority as the conflicting connection **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, whereby the input port number is a unique identifier, as a priority tiebreaker when more then one message of the same priority is waiting for the same output port to become available).**

With respect to claim 3, Olnowich et al. discloses that the unique identifier is an identifier of the switch device that sent the data as a priority tiebreaker **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, which is an identifier of the switch and a device that sent the data, as a priority tiebreaker when more then one message of the same priority is waiting for the same output port to become available).**

With respect to claim 4, Olnowich et al. discloses establishing part of the conflicting connection through the port includes sending data through the partially built current connection indicating that the current connection cannot be established **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred sending a correction signal to the deadlocked switch, which indicates that a port of a switch is part of a conflicting connection).**

With respect to claim 9, Olnowich et al. discloses a device comprising a component that establishes and existing connection through a port **(See column 21 lines 21-39 and Figure 11 of Olnowich et al. for reference to switch devices 10A-10H, which have nodes, which are ports, through which connections are established and for reference to connections being establish by nodes 7 and 15 of switches 10B and 10D respectively)**. Olnowich et al. also discloses a component that receives a communication at the port, the communication indicating that the port is to be part of a conflicting connection established through the device, wherein a switch that a conflicting connection contacts to request a connection is responsible for detecting a conflict **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred, sending from a port of a switch that sent the data to a port of a switch that is involved in the deadlock a correction signal, which indicates that a port of a switch is part of a conflicting connection, meaning that the switch that the conflicting connection contacts to request a connection detects that there is a deadlock conflict by receiving this correction signal)**. Olnowich et al. further discloses a component that maintains the existing connection when the existing connection has a higher priority than the conflicting connection and terminates the existing connection when the conflicting connection has a higher priority that the existing connection **(See column 21 lines 21-39 and column 23 lines 56-67 of Olnowich et al. for reference to an example of a deadlock situation occurring and for reference to the deadlock being resolved by making priority consistent across all the deadlocked ports of the deadlocked switches,**

meaning that the existing connection is maintained when it has higher priority and the existing connection is terminated so that the conflicting connection can be established when the conflicting connection has a higher priority). Olnowich et al. further discloses keeping the existing connection while the priority determination is made **(See column 21 lines 53-56 and column 20 lines 10-12 of Olnowich et al. for reference to the correction occurring without terminating or changing any other connections and at the same time holding the existing connection at the switch, while the priority is determined)**. Olnowich et al. also discloses using a unique identifier as a tiebreaker to determine which connection has a higher priority when the current connection has the same priority as the conflicting connection **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, whereby the input port number is a unique identifier, as a priority tiebreaker when more then one message of the same priority is waiting for the same output port to become available)**.

With respect to claim 11, Olnowich et al. discloses that the unique identifier is an identifier of the device and another device that sent the communication is used as a priority tiebreaker **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, which is an identifier of the switches and devices that sent the data, as a priority tiebreaker when more then one message of the same priority is waiting for the same output port to become available)**.

With respect to claim 12, Olnowich et al. discloses a component that sends a communication through the existing connection indicating that the existing connection

cannot be made **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred sending a correction signal to the deadlocked switch, which indicates that a port of a switch is part of a conflicting connection, indicating that a connection cannot be properly established)**.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2, 10, 20, 23-24, 29, 32, 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olnowich et al. in view of Yasuda et al. (U.S. Pat. 5892923).

With respect to claims 2 and 10, Olnowich et al. does not disclose that the priority of a connection is based on priority of data to be transmitted through the connection.

Yasuda et al., in the field of communications, discloses controlling routing connections using message priority, which can be interpreted to be data priority or communication priority **(See column 4 lines 8-17 of Yasuda et al. for reference to this method)**. Using message priority to route data has the advantage of making sure that high priority data and communications, for example, time sensitive data, such as

voice or video data, is routed with a minimum of interruptions due to deadlock conditions.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Yasuda et al., to apply the use of data and communication priority, as suggested by Yasuda et al., to the deadlock resolution method and system of Olnowich, with the motivation being to make sure that high priority data and communications, for example, time sensitive data, such as voice or video data, is routed with a minimum of interruptions due to deadlock conditions.

With respect to claim 20, Olnowich et al. discloses a method in a routing device for avoiding a deadlock while a connection is being established through the routing device **(See the abstract and column 17 lines 28-34 of Olnowich et al. for reference to circuitry detecting and correction different types of deadlock conditions automatically in a dual priority switching apparatus, which is a routing device)**. Olnowich et al. also discloses receiving a communication at the routing device, the communication indicating that a port is to be part of a conflicting connection established through the routing device **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred sending a correction signal, which indicates that a port of a switch is part of a conflicting connection)**. Olnowich et al. further discloses when the routing device is already part of a current connection that is being established, terminating the current connection and establishing part of the new connection through the routing device, wherein the current connection is terminated and the new connection is established when the new

connection has a higher priority **(See column 21 lines 21-39 and column 23 lines 56-67 of Olnowich et al. for reference to an example of a deadlock situation occurring and for reference to the deadlock being resolved by making priority consistent across all the deadlocked ports of the deadlocked switches, meaning that the higher priority connection is connected through the port and if the new conflicting connection has higher priority, the current connection is terminated and the new conflicting connection is established through the port)**. Olnowich et al. also discloses keeping the current connection while the priority determination is made **(See column 21 lines 53-56 and column 20 lines 10-12 of Olnowich et al. for reference to the correction occurring without terminating or changing any other connections and at the same time holding the current connection at the switch, while the priority is determined)**. Olnowich et al. further discloses using a unique identifier as a tiebreaker to determine which connection has a higher priority when the current connection has the same priority as the conflicting connection **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, whereby the input port number is a unique identifier, as a priority tiebreaker when more then one message of the same priority is waiting for the same output port to become available)**. Olnowich et al. does not disclose that the priority of a connection is based on the priority of the communications to be transmitted through the connection.

Yasuda et al., in the field of communications, discloses controlling routing connections using message priority, which can be interpreted to be data priority or

communication priority **(See column 4 lines 8-17 of Yasuda et al. for reference to this method)**. Using message priority to route data has the advantage of making sure that high priority data and communications, for example, time sensitive data, such as voice or video data, is routed with a minimum of interruptions due to deadlock conditions.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Yasuda et al., to apply the use of data and communication priority, as suggested by Yasuda et al., to the deadlock resolution method and system of Olnowich, with the motivation being to make sure that high priority data and communications, for example, time sensitive data, such as voice or video data, is routed with a minimum of interruptions due to deadlock conditions.

With respect to claim 23, Olnowich et al. discloses that the unique identifier is an identifier of the routing device and another device that sent the communication as a priority tiebreaker **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, which is an identifier of the routing device and another device that sent the data, as a priority tiebreaker when more then one message of the same priority is waiting for the same output port to become available)**.

With respect to claim 24, Olnowich et al. discloses that establishing of the new connection includes sending communications through a partially built current connection indicating that the current connection cannot be established **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred**

sending a correction signal to the deadlocked switch, which indicates that a port of a switch is part of a conflicting connection).

With respect to claim 29, Olnowich et al. discloses that the routing device has ports and a conflict occurs when the current connection and the new connection are to use the same conflicting port **(See column 21 lines 21-39 of Olnowich et al. for reference to an example of a type of deadlock that occurs when both nodes 7 and 15, which are ports, try to secure connections using the same nodes, ports, of switches 10E and 10G, and for reference to node 7 successfully securing the connections to the nodes in switch 10G and node 15 successfully securing the connections to the nodes in switch 10E, with both nodes 7 and 15 unable to complete their connections resulting in a deadlock).**

With respect to claim 32, Olnowich et al. discloses a device comprising a means for receiving a communication at a port, that port having an existing connection that is partially built, with the communication indicating that the port is to be part of a new connection, wherein a switch that a conflicting connection contacts to request a connection is responsible for detecting a conflict **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred, sending from a port of a switch that sent the data to a port of a switch that is involved in the deadlock a correction signal, which indicates that a port of a switch is part of a conflicting connection, meaning that the switch that the conflicting connection contacts to request a connection detects that there is a deadlock conflict by receiving this correction signal).** Olnowich et al. also discloses

a means for maintaining the existing connection when the existing connection has a higher priority than the new connection and a means for terminating the existing connection when the new connection has a higher priority than the existing connection **(See column 21 lines 21-39 and column 23 lines 56-67 of Olnowich et al. for reference to an example of a deadlock situation occurring and for reference to the deadlock being resolved by making priority consistent across all the deadlocked ports of the deadlocked switches, meaning that the higher priority connection is connected through the port, and if the existing connection has higher priority, maintaining the existing connection, and if the new conflicting connection has higher priority, the existing connection is terminated and the new conflicting connection is established through the port)**. Olnowich et al. also discloses keeping the existing connection while the priority determination is made **(See column 21 lines 53-56 and column 20 lines 10-12 of Olnowich et al. for reference to the correction occurring without terminating or changing any other connections and at the same time holding the current connection at the switch, while the priority is determined). Olnowich et al. does not disclose that the priority of a connection is based on the priority of the communications to be transmitted through the connection)**. Olnowich et al. further discloses using a unique identifier as a tiebreaker to determine which connection has a higher priority when the current connection has the same priority as the conflicting connection **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, whereby the input port number is a unique identifier, as a priority tiebreaker when more then one**

message of the same priority is waiting for the same output port to become available). Olnowich et al. does not disclose that the priority of a connection is based on the priority of the communications to be transmitted through the connection.

Yasuda et al., in the field of communications, discloses controlling routing connections using message priority, which can be interpreted to be data priority or communication priority **(See column 4 lines 8-17 of Yasuda et al. for reference to this method)**. Using message priority to route data has the advantage of making sure that high priority data and communications, for example, time sensitive data, such as voice or video data, is routed with a minimum of interruptions due to deadlock conditions.

It would have been obvious to one of ordinary skill in the art at the time of the invention, when presented with the work of Yasuda et al., to apply the use of data and communication priority, as suggested by Yasuda et al., to the deadlock resolution method and system of Olnowich, with the motivation being to make sure that high priority data and communications, for example, time sensitive data, such as voice or video data, is routed with a minimum of interruptions due to deadlock conditions.

With respect to claim 34, Olnowich et al. discloses that the unique identifier is an identifier of the device and another device that sent the communication is used as a priority tiebreaker **(See column 10 lines 17-29 of Olnowich et al. for reference to using the lowest numbered input port, which is an identifier of the switches and devices that sent the data, as a priority tiebreaker when more then one message of the same priority is waiting for the same output port to become available)**.

With respect to claim 35, Olnowich et al. discloses a means for sending a communication through the existing connection indicating that the existing connection cannot be established **(See column 21 lines 44-54 of Olnowich et al. for reference to after detecting that a deadlock has occurred sending a correction signal to the deadlocked switch, which indicates that a port of a switch is part of a conflicting connection)**.

7. Claims 5, 13, 25, 30, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olnowich et al. in view of Srinivasan et al. (U.S. Pat. 6304549).

With respect to claims 5, 13, 25, 30, and 36 Olnowich et al. does not discloses attempting to establish the connections, for example, the lower priority connection, through another equivalent port, or bridge.

Srinivasan et al., in the field of communications, discloses attempting a different route when a connection is unsuccessful **(See column 11 lines 29-39 of Srinivasan et al. for reference to attempting a different route)**. This method of attempting a different rout is equivalent to attempting to establish connections, for example, the lower priority connection, through another bridge. This method has the advantage of taking less time to route the data of the lower priority connection because, if a connection though a different route is used, the data can be transferred without having to wait until the data of the conflicting connection has finished being transferred.

It would have been obvious to one of ordinary skill in the art at the time of the inventions, when presented with the work of Srinivasan et al., to apply the method of

attempting to find a different route for connections, as suggested by Srinivasan et al., to the deadlock resolution method and system of Olnowich et al., with the motivation being to take less time to route the data of the lower priority connection because, if a connection though a different route is used, the data can be transferred without having to wait until the data of the conflicting connection has finished being transferred.

8. Claims 6, 14, 26, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olnowich et al. in view of Ogimoto et al. (U.S. Pat. 6032205).

With respect to claims 6, 14, 26, and 37, Olnowich et al. does not disclose that the data or communication is a start-of-connection frame.

Ogimoto et al., in the field of communications, discloses data being processed with a priority controller 113 through header decode circuits 109 and 111 in a switching environment based on leading words in the messages **(See column 8 lines 7-20 and items 109, 111, and 113 in Figure 2 of Ogimoto et al. for reference to data being processed based on leading words)**. The leading words of Ogimoto et al. initiate a transmission permit signal, which can be interpreted to be a start of connection frame. This method has the advantage of encoding routing and priority in the data so that connection paths can be requested and priorities can be determined.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ogimoto et al., to apply the use of leading works, as suggested by Ogimoto et al., to the deadlock resolution method and system

of Olnowich et al., with the motivation being to encode routing and priority in the data so that connection paths can be requested and priorities can be determined.

9. Claims 7-8, 15-16, 27-28, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olnowich et al. in view of Latif et al. (U.S. Pat. 6400730).

With respect to claims 7-8, 15-16, 27-28, and 38-39, Olnowich et al. does not specifically disclose switches being Fibre Channel and InfiniBand compatible.

Latif et al., in the field of communications, discloses a switch comprising any combination of Fibre Channel and InfiniBand ports **(See column 4 lines 13-39 of Latif et al. for reference to the Fibre Channel and InfiniBand ports)**. Making the switch Fibre Channel and InfiniBand compatible has the advantage of allowing the switch to process data using the Fibre Channel standard and the InfiniBand standard.

It would have been obvious for one of ordinary skill in that art at the time of the invention, when presented with the work of Latif et al., to apply a Fibre Channel and InfiniBand compatible switch, as suggested by Latif et al., to the deadlock resolution method and system of Olnowich et al., with the motivation being to allow the switching system to process data using the Fibre Channel standard and the InfiniBand standard.

10. Claims 17-19, 31, and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olnowich et al. in view of Liew (U.S. Pat. 5327552).

With respect to claims 17-19, 31, and 40-41, Olnowich et al. differs from these claims in that Olnowich et al. does not specifically disclose that the device is a routing device, switch, an interconnect fabric module, and node.

Liew, in the field of communications, discloses a method and device for correcting routing errors, including a method for deadlock prevention, for use with a routing device, a switch, an interconnect fabric module, and a node **(See column 1 lines 7-24 of Liew for reference to the use of a deadlock prevention method with a routing device, a switch and a node)**. Including a deadlock prevention method in a routing device, a switch, an interconnect fabric module, and a node has the advantage of applying the method to different types of switching networks, rather than just in the specific device disclosed by Olnowich et al.

It would have been obvious for one of ordinary skill in that art at the time of the invention, when presented with the work of Liew, to apply a routing device, a switch, an interconnect fabric module, and a node, as suggested by Liew, to the deadlock resolution method and system of Olnowich et al., with the motivation being to use the deadlock resolution method and device in with different types of switching networks.

Response to Arguments

11. Applicants' arguments filed 10/04/04 have been fully considered but they are not persuasive.

In response to the Applicants' argument that:

> "In other words, claim 1 and claim 9 have been amended to recited, among other limitations, a method in which "when the current connection has the same priority as the conflicting connection, using a unique identifier as a tiebreaker to determine which connection has a higher priority". *Olnowich* fails to disclose such a method for determining higher priority between a current connection and a conflicting connection having the same priority. For at least this reason, claim 1 and claim 9 are patentable over *Olnowich*." (See page 9 of Applicants' Remarks)

the Examiner respectfully disagrees. As cited in the rejections above, Olnowich discloses using the lowest numbered input port, whereby the input port number is a unique identifier, as a priority tiebreaker when more then one conflicting message of the same priority is waiting for the same output port to become available (See column 10 lines 17-29 of Olnowich et al. for reference to this process). Therefore, since the input port numbers of the conflicting connections are unique identifiers, Olnowich et al. does disclose the above quoted claim limitation of claim 1 and 9.

In response to the Applicants' argument that:

> "In addition, *Olnowich* fails to disclose a method in which "a switch that a conflicting connection contacts to request a connection is responsible for detecting a conflict". Instead, *Olnowich* discloses detection of a conflict by a switch other than the one that a conflicting connection contacts to request a connection. Column 21, lines 42-53. In particular, *Olnowich*

discloses that the conflicting connection contacts a stage 2 switch to request connection" (See page 9 of Applicants' Remarks)

the Examiner respectfully disagrees. Although it is true in the method of Olnowich et al. that the switch that sent the conflicting connection (a stage 1 switch) is the switch that originally determines that there is a conflict, this does not mean that the switch that a conflicting connection contacts to request a connection (a stage 2 switch) is not responsible for detecting a conflict. On the contrary, the stage 2 switch receives a correction signal from the stage 1 switch that originally determines there is a conflict (See column 21 lines 50-52 of Olnowich et al.). This correction signal is used by the stage 2 switch to detect a conflict. Since there is no other mentioned use of this correction signal in the Olnowich et al., it is reasonable to assume that a stage 2 switch that receives a correction signal is detecting that there is a conflicting connection. Therefore, the stage 2 switch does detect the conflicting connection, as signaled by the correction signal, and takes action to reprioritize and eliminate the deadlock condition. There is no limitation in the claim language of any of the independent claims 1, 9, 20, or 32 that states that the a switch that a conflicting connection contacts to request a connection is responsible for originally determining that there is a conflict. The only limitation present in these claims is that the switch that a conflicting connection contacts to request a connection is responsible for detecting that a conflict has occurred. This limitation does not preclude the original determination that there is a conflict from taking place in another device. Therefore, the devices and methods of Olnowich et al. do

disclose the claimed limitation of "a switch that a conflicting connection contacts to request a connection is responsible for detecting a conflict".

In response to the Applicants' argument that:

> "According to the Manual of Patent Examining Procedure ("MPEP") and controlling case law, the motivation to combine reference cannot be based on mere common knowledge and common sense as to the benefits that would result from such a combination, but instead must be based on specific teaching in the prior art, such as a specific suggestion in a prior art reference. For example, last year the Federal Circuit rejected an argument by the PTO's Board of Patent Appeals and Interferences that the ability to combine the teachings of two prior art references to produce beneficial results was sufficient motivation to combine then, and thus overturned the Board's finding of obviousness because of the failure to provide specific motivation in the prior art to combine the two references. The MPEM provides similar instruction." (See pages 12-13 of Applicants' Remarks)

the Examiner respectfully disagrees. Section 2143, as cited in the Applicants' Remarks, states, "First, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings". In this specific case, the motivation to combine the teachings of Olnowich et al. with Yasuda et al. is derived from knowledge generally available to one of ordinary skill in the art and the implicit benefits

derived from the Yasuda et al. reference. Section 2143.01 of the MPEM states that "Obviousness can only be established by combining or modifying teachings of the prior art to produce the claimed invention where there is some teaching, suggest, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." There is no indication that a motivation to combine must be found explicitly stated in the references themselves. Therefore, the motivation to combine the Olnowich et al. reference with the Yasuda et al. reference is a proper motivation, as the benefits derived by basing connection priority on the priority of the data to be transmitted through the connection, as taught by the Yasuda et al. reference, are the same benefits that the combination of Olnowich et al. and Yasuda et al. derive.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jem

ALPUS H. HSU
PRIMARY EXAMINER